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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/552,179	10/05/2005	Cristina Gomila	PU030116	6210

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EXAMINER	
SHERALI, ISHRAT I	

ART UNIT	PAPER NUMBER
2624	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/552,179	GOMILA ET AL.	
	Examiner	Art Unit	
	Sherali Ishrat	2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-21* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,3,6,7,9,14,15,17 and 21* is/are rejected.

7)☒ Claim(s) *2, 4-5, 8, 10-13, 16, 18-20* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *See Continuation Sheet*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application.
6) ☐ Other: _____.

Continuation of Attachment(s) 3). Information Disclosure Statement(s) (PTO/SB/08), Paper No(s)/Mail Date :3/15/10; 2/1/10; 3/19/09; 5/18/07; 10/5/2005.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 3, 6-7, 9, 14-15, 17 and 21 are rejected under 35 U.S.C. 102(b) as being anticipated by Campisi et al. (Signal dependent film grain noise generation using homomorphic adaptive filtering, IEE Proc-Vis Image Signal Process, Vol. 147, No.3, June 2000, pages 283-287..)

. Regarding claim 1, Campisi discloses simulating film grain (Campisi, in page 283, Abstract, lines 1-5, and paragraph 2, right-column, lines 1-5, states "generation of signal-dependent film grain noise in which artificial film grain noise is added to images". This corresponds to simulating film grain); comprising:

receiving encoded image (Campisi, in Fig. 1, page 284, paragraph 2, left column , lines 1-15, shows "receiving homomorphic transform image [g(.)] to decouple the noise from the signal". Homomorphic transform image corresponds to receiving encoded image);

receiving film grain characterization information indicative of grain in film on which the encoded was originally recorded (Campisi, in Fig. 1, page 284, paragraph 2, left column , lines 1-15, shows "receiving film grain

characterization of filtered image [parameter estimation and noise generation] indicative of grain in film on which the encoded was originally recorded". This corresponds to receiving film grain characterization information indicative of grain in film on which the encoded was originally recorded);

decoding the encoded image (Campisi, in Fig. 1, page 284, paragraph 2, left column , lines 1-15, shows "decoding the encoded image by inverse homomorphic transform of homomorphic transform filtered image [g(.) -1]". This corresponds to decoding the encoded image);

simulating a pattern of grain in accordance with the received film grain characterization information (Campisi, in Fig. 1, page 284, paragraph 2, left column , lines 1-15, shows "parameter estimation and noise generation". This noise generation based on estimated parameter corresponds to simulating a pattern of grain in accordance with the received film grain characterization information);

blending the simulated film grain pattern with decoded (Campisi, in Fig. 1, page 284, paragraph 2, left column , lines 1-15, shows "noise generated is added to inverse homomorphic transform filtered image" and Campisi, in page 283, Abstract, lines 1-5, and paragraph 2, right-column, lines 1-5, states "generation of signal-dependent film grain noise in which artificial film grain noise is added to images". This corresponds to blending the simulated film grain pattern with decoded image).

Regard claims 3, 9 and 17, Campisi discloses receiving the film grain characterization inform includes receiving an identifier of which type of film stock

was originally used to the encoded image (Campisi, in page 283, Abstract, lines 1-5, and paragraph 2, right-column, lines 1-5, states "generation of signal-dependent film grain noise in which artificial film grain noise is added to images. Since Campisi is generating film noise based on signal dependent and film grain is generated based on the signal noise statistics therefore signal and noise statistics are identifier of which film stock was originally used to the encoded image).

Regarding claims 6 and 21, Campisi discloses separately simulating the pattern of film grain for separate groups of frame in the encoded video (Campisi, in page 283, Abstract, lines 1-5, and paragraph 2, right-column, lines 1-5, states "generation of signal-dependent film grain noise in which artificial film grain noise is added to images. Since Campisi is generating film noise based on signal dependent therefore Campisi is separately simulating the pattern of film grain for separate groups of frame in the encoded video).

Regarding claim 7, Campisi discloses simulating film grain (Campisi, in page 283, Abstract, lines 1-5, and paragraph 2, right-column, lines 1-5, states "generation of signal-dependent film grain noise in which artificial film grain noise is added to images". This corresponds to simulating film grain); comprising:

encoding image originally recorded on the film (Campisi, in Abstract, Fig. 1, page 284, paragraph 2, left column , lines 1-15, shows "generation of signal-dependent film grain noise" and " homomorphic transform image [g(.)] to decouple the noise from the signal". Homomorphic transform image corresponds to encoding image);

identifying the film grain present in the input image (Campisi, in Fig. 1, page 284, paragraph 2, left column , lines 1-15, shows film grain characterization of filtered image [parameter estimation and noise generation". This corresponds identifying the film grain present in the input image);

establishing film grain characterization for the in the accordance with predefined modeling process so that upon decoding the encoded a pattern of film grain can be simulated in accordance with the film grain characterization and blended with decoded image (Campisi, in Fig. 1, page 284, paragraph 2, left column , lines 1-15, shows film grain characterization of filtered image [parameter estimation and noise generation/modeling] and "noise generated is added to inverse homomorphic transform filtered image" and Campisi, in page 283, Abstract, lines 1-5, and paragraph 2, right-column, lines 1-5, states "generation of signal-dependent film grain noise in which artificial film grain noise is added to images").

Regarding claim 14, Campisi discloses simulating film grain in an image (Campisi, in page 283, Abstract, lines 1-5, and paragraph 2, right-column, lines 1-5, states "generation of signal-dependent film grain noise in which artificial film grain noise is added to images". This corresponds to simulating film grain); comprising:

decoder for receiving the encoded and film grain characterization indicative of grain in film on which the encoded was originally was recoded and decoding the image (Campisi, in Fig. 1, page 284, paragraph 2, left column , lines 1-15, shows "receiving homomorphic transform image [g(.)] to decouple the

noise from the signal and "decoding the encoded image by inverse homomorphic transform of homomorphic transform filtered image [g(.) -1]" . This corresponds to decoder for receiving the encoded and film grain characterization indicative of grain in film on which the encoded was originally was recoded and decoding the image).

simulating a pattern of film grain in accordance with the received film parameter characterization and blending the simulated film grain pattern to the decoded image (Campisi, in Fig. 1, page 284, paragraph 2, left column , lines 1-15, shows "parameter estimation and noise generation" and "noise generated is added to inverse homomorphic transform filtered image" and Campisi, in page 283, Abstract, lines 1-5, and paragraph 2, right-column, lines 1-5, states "generation of signal-dependent film grain noise in which artificial film grain noise is added to images". This corresponds to simulating a pattern of film grain in accordance with the received film parameter characterization and blending the simulated film grain pattern to the decoded image).

Regarding claim 15, Campisi disclose decoder receives the film grain characterization as parallel information to encoded image (Campisi, Fig. 1 decoder [g-1 (.) receives film grain characterization [parameter estimation and noise generation] parallel to encode image [u[m1, m2])].

Allowable Subject Matter

3. Claims 2, 4-5, 8, 10-13, 16 and 18-20 are objected as being dependent on reject base claim but would be allowable if re-written in independent form including limitations of the base claim and any intervening claims.

Contact Information

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sherali Ishrat whose telephone number is 571-272-7398. The examiner can normally be reached on 8:00 AM - 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Bella can be reached on 571-272-7778. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Sherali Ishrat/
Primary Examiner, Art Unit 2624

July 17, 2010